

**PREVOST**

ENREGISTRÉ - REGISTERED  
**ISO 9001 & ISO 14001**

# MAINTENANCE INFORMATION

Mi04-17



DATE : SEPTEMBER 2004	SECTION : 22 - HVAC
SUBJECT : ELECTRICAL MOTOR BRUSH CHANGE TEST IN THE EVAPORATOR COMPARTMENT	

**Important Notice:** This modification is recommended by Prevost Car to increase your vehicle's performance. Note that no reimbursement will be awarded for carrying out this modification.

## DESCRIPTION

A test was performed on the evaporator electric motor due to the high running amperage and also because the problem is worse when we replace the brushes.

## APPLICATION

Vehicle: 2300

Electrical Motor S/N: 737537/018

Date: September 29<sup>th</sup>, 2004

**FOR INTERNAL USE ONLY**

## TEST RESULTS

**Motor adjustment verification with cooling demand at max. and no power on clutch:**

2:10 PM: 28.7 A low speed, goes to 50 A in high speed

2:12 PM: 50.1 A

2:18 PM: 52.2 A

2:24 PM: 52.7 A

2:32 PM: 53.1 A

2:36 PM: 53.0 A

**Brush change: #562951, black wire insulation, Loraine Carbon #248675.** The brush is machined but not polished. We had to turn the brush holder in order to remove the brush terminal.

3:32 PM: 27.5 A Breaker trips when going to high speed. Breaker is reset.

3:35 PM: System is back in operation, we asked for some heat to keep the motor in low speed. The motor goes to high speed: 50A.

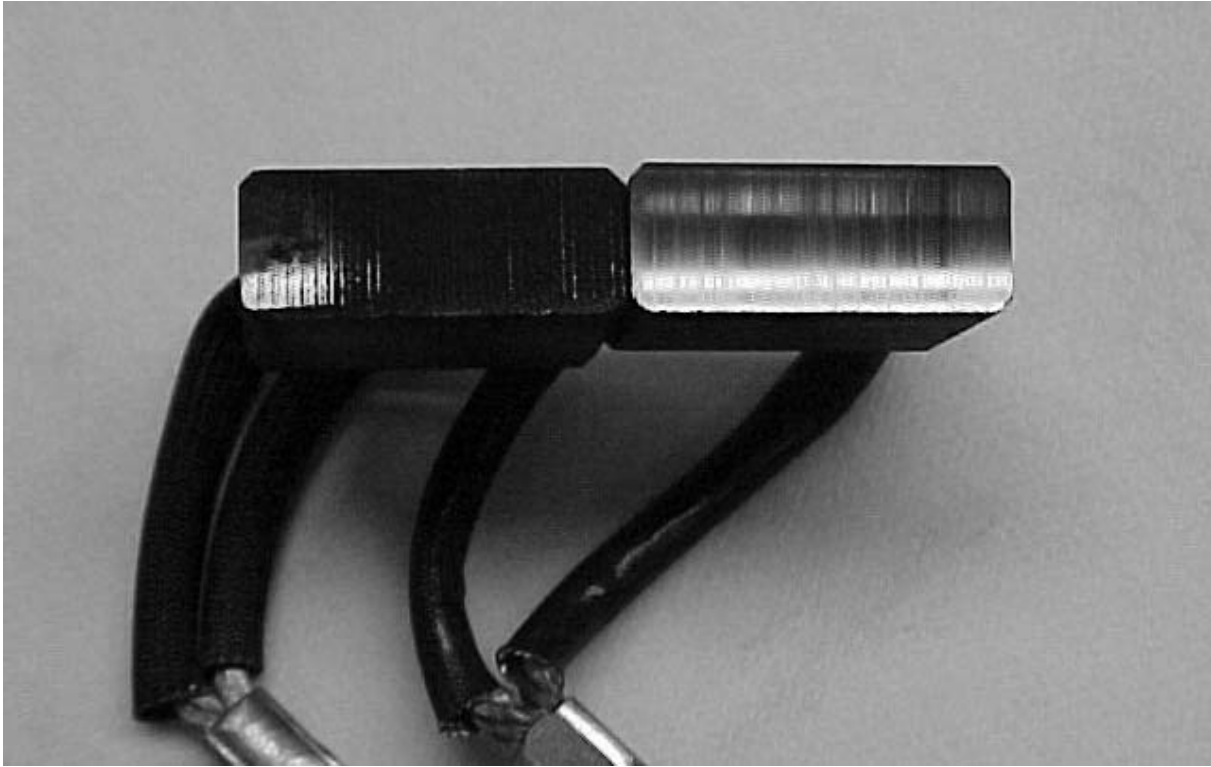
3:37 PM: System restarted, 28.8 A in low speed.

3:38 PM: 51.5 A in high speed.

3:40 PM: 53.1 A

3:54 PM: 54 A

After about 20 minutes of operation, here is the new brush polishing compared to the old one.



**NOTE**

*We can see that the polishing is not yet finished but the motor is operating within its parameters.*

### **SUGGESTED PROCEDURE BASED ON THE PREVIOUS RESULTS**

- \* Operate the system in high speed for at least 5 minutes to allow the motor to warm up
- \* Record the motor amperage in normal operation condition.

#### **XL2 & H3 Evaporator Motor Test Conditions**

- Evaporator compartment door closed
- Entrance door closed
- Escape hatch closed
- Driver's window closed
- Stepwell return air grill unobstructed
- Passenger Recirculation button in OFF
- Evaporator motor in high speed for at least 5 minutes

#### **The amperage specification was modified to 65 A max.**

- \* If the motor amperage exceeds 67 A, adjust the brush holder or keep it in mind when reinstalling the brushes if the brush holder had to be moved to access the screws.
- \* Change the brushes
- \* Operate the motor in low speed for about 10 minutes to allow the brushes to adjust. You could disconnect the time Capsule resistor or ask for some heat.
- \* Operate the motor in high speed for 5 minutes to check the amperage